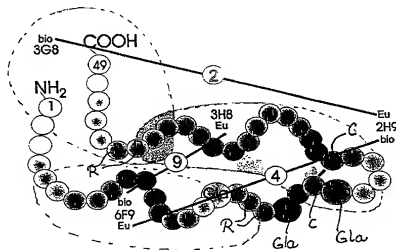




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(54) Title: METHOD FOR PREDICTION OF BONE FRACTURES BY OSTEOCALCIN MEASUREMENTS



## (57) Abstract

This invention concerns a method for the assessment of bone fragility and fracture risk, or osteoporosis, in a person. In said method, the concentration of gamma-carboxylated osteocalcin (COC) and optionally also the concentration of intact or total osteocalcin (IOC or TOC, respectively) in a body fluid sample of said person is measured. The concentration of gamma-carboxylated osteocalcin (COC) so obtained is compared to the mean concentration of gamma-carboxylated osteocalcin (mean COC) in similar body fluid samples of the population of the same age and sex. Alternatively, the determined ratio COC/IOC or COC/TOC for said person, is compared to the mean ratio COC/IOC or COC/TOC, (mean ratio COC/IOC or mean ratio COC/TOC) determined from measurements in similar body fluid samples of the population of the same age and sex. A measured COC that is lower than the mean COC is used as indication of osteoporosis, bone fragility or increased risk of bone fracture in said person. Preferably, a determined ratio COC/TOC that is lower than the mean ratio COC/TOC is used as indication of osteoporosis, bone fragility or increased risk of bone fracture in said person. The invention concerns further kits for use in the assessment according to this invention.